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PHOTOGRAPHY, TONE & COLOR CORRECTION

655.302

***MODIFICATION OF THE LIGHT RESPONSE FROM A COLOURED ORIGINAL.** U. S. Patent 2,968,214 - Filed November 4, 1955. Arthur Roy Kilminster - Assigned to Hunter-Penrose Limited, a British Company. Official Gazette 762, No. 3, January 17, 1961, page 450. Apparatus for the preparation of a colour separation photographic negative for use in photo-mechanical reproduction processes, comprising a scanning means including a projection lens arranged to direct an intensity corrected spot of substantially white light onto an original, means to move the lens relative to the original, to effect sequential scanning of the original, an auxiliary lens movable with the projection lens and disposed to direct a pilot scanning spot of light onto the original slightly in advance of said intensity corrected scanning spot, three photoelectric devices respectively having associated therewith a blue, a green, and a red filter, and which are responsive to light transmitted by the original from the pilot scanning spot to produce electrical primary colour signals representative of the primary colour components of light transmitted from the original, and control means connecting the photoelectric devices to the scanning means, said control means including a colour analyzing device arranged to eliminate from said primary colour signal components representative of tones of grey in the original and to produce process colour signals from components of said primary colour signals representative only of the spectral colours of the original, and correction means operable under control of one of said process colour signals from which the components representative of gray tones have been eliminated and of said primary colour signals to produce a modulating signal for application to the scanning means to modulate the intensity of the intensity corrected scanning spot.

655.302

***ELECTRONIC NEGATIVE-POSITIVE CONVERSION AND CORRECTION OF GRADATION CURVES OF COLOR EXTRACTIONS.** U. S. Patent 2,969,709 - Filed July 31, 1957. Fritz-Otto Zeyen and Karl-August Springstein - Assigned to Dr.-Ing. Rudolf Hell Kommanditgesellschaft, a German Company. Official Gazette 762, No. 5, January 31, 1961, pp. 875-876.
In a system for correcting and matching the course of gradation curves of photographic color extractions of a multicolor copy which is to be reproduced, wherein an original gray scale positive with fixed darkened areas is for the production of each color extraction always photographed together with the multicolor picture to obtain a gray scale negative, apparatus for satisfying, in the presence of deviations from a desired standard gradation course, the so called gray requirement comprising means for producing first electrical voltages proportional to the gradations in the gray scale on the negative, means for converting said first voltages to second voltages whereby the first voltages are modified by a variable functional relationship between densities of the negative and the positive due to a chosen photographic copying procedure, means for comparing those of the discrete values of said second voltages which according to said functional relationship reflect transparencies of the gray scale negative with corresponding values of transparencies of the original gray scale, and means for altering said functional relationship so as to bring the gray scale negative values obtained into agreement with those of the original.

771.317

ROLL FILM CAMERA AND PRINTING PRODUCTIVITY. A. J. Powers. Printing Production 91, No. 4, January 1961, pp. 54-57 (4 pages). The main advantage claimed for roll film is economy due to: 1. Lower cost per sq. ft., 2. Less wastage. Another advantage is increased productivity. The operation of a roll film camera is explained with 9 illustrations.

655.302

A LOOK AT COLOR SCANNERS. John M. Lupo, Jr. Modern Lithography 29, No. 1, January 1961, pp. 45-46 (2 pages). Color Scanning started with Murray's ideas in the middle 30's, reached commercial use in 1950. The purpose of a scanner is to separate the colors of an original into 3 or 4 colors, correct them for the deficiencies of the inks, etc. A scanner normally consists of a scanning unit, a computer, and a recording unit. The nature and functions of each are described. As an example the Fairchild Scan-A-Color is described and specifications given. 2 Illustrations.

655.303

STRIPPING HALFTONES WITH A BUTT FIT. Herbert P. Paschel. Modern Lithography 29, No. 1, January 1961, p 57 (1 page). In answer to an inquiry, author gives a method for obtaining close fit between small pictures in a school annual.

771.44

VENT THOSE ARCS. William K. Kirsher. National Lithographer 68, No. 1, January 1961, pp. 24-25,59 (3 pgs). "The dense plume of hot, bluish smoke that rises from a burning carbon arc can be disabling, even causing death." A case is cited. Nitrogen dioxide is given as the cause. A hood and exhaust fan are suggested. 5 References.

655.322

AN ALTERNATIVE TO DOT ETCHING. Edward Glauder. National Lithographer 68, No. 1, January 1961, pp. 28-29 (2 pages). Six reasons are given why hand correction cannot be entirely eliminated in color transparency reproduction. The alternative to dot etching is in varying exposures in contacting from screened positives to negatives. This results in varying amounts of dot spread under the control of cut out masks. Method is explained and a table given showing effect on various dots of exposures 2, 4, 6 and 8 times normal.

771.351

IMAGE QUALITY OF PROCESS LENSES. Dr. H. Naumann. The Litho-Printer 4, No. 1, January 1961, pp. 16-17, 19-21 (5 pages). Some history of process lens design is given in relation to the corrections achieved. Modern lens designs include both symmetrical and unsymmetrical types. Other points discussed include the newer glasses now available, apochromatic systems, and electronic computation methods. There have been recent advances, but the lens designer must still work hard to keep up with the growing demands of process techniques. 11 Illustrations.

655.302

THE CHALLENGE OF COLOR - Part Ten of "Stripping for Profit". Elizabeth Parker. National Lithographer 68, No. 1, January 1961, pp. 38-39, 66 (3 pages). Color printing brings troubles, and a sense of pride when done well. Consistency is important among the ingredients of a good job. Other suggestions include some investment in good equipment, choice of one acceptable color separation method and brand of film, and sticking with them; same with plates and inks, - Consistency.

770.23

CHEMICAL REVERSAL. J. S. Mertle. National Lithographer 68, No. 1, January 1961, p. 44 (1 page). Refers to two methods given by Dick Arden. The hydrogen peroxide-copper sulfate method yields sharper line and halftone images of greater silver density; the potassium bichromate-sulfuric acid method is more economical. Formula and working methods are given for both.

771.447

TUNGSTEN LIGHTING FOR THE GRAPHIC ARTS. Anon. The Lithographer and Offset Printer 57, No. 1, January 1961, pp. 22-25 (4 pages). Incandescent lighting has much to commend it for camera work. One advantage is the continuous spectrum which arcs and fluorescents lack. Color temperature is explained and discussed. Graphs give spectral energy distributions for a number of light sources, and for incandescents at various voltages and for intensities with and without reflectors. 4 Diagrams.

152.1

COMPLEXITIES OF PERCEIVED BRIGHTNESS. Dorothea Jameson and Leo M. Hurvich. Science 133, No. 3447, January 20, 1961, pp. 174-179 (6 pages). The relationship between perceived brightness and stimulus luminance is not a simple linear one. It has been the subject of extensive investigation. A series of experiments is described using a pattern of squares of different luminances. Apparent brightness may increase, decrease, or remain constant as illumination is increased. 16 References - 8 Illustrations.

PLANOGRAPHIC PRINTING PROCESSES

655.324

LTF RESEARCH TACKLES ZINC. Dr. Paul J. Hartsuch. National Lithographer 68, No.1, January 1961, pp. 36-37, 42 (3 pages). Work reported on includes production of a very fine grain on zinc, new surface treatments. A wipe-on platemaking process which looks promising, and zinc alloy plates which do not stretch during a run.

655.325

"WHAT HAPPENED?" Eugene C. Bulinski. The Graphic Arts Monthly 33, No. 1, January 1961, pp. 114,16,18,20,22 (5 pages). Lithographic platemaking is analyzed from the standpoint of the operations which can be done wrongly, and the troubles which result.

655.326

THE TENDER LOVING CARE OF OFFSET BLANKETS. Anon. ODR Reproductions Review 11, No. 1, January 1961, pp. 18,19,20,76 (4 pages). The make-up and qualifications of a blanket are first given. Suggestions on the installation and care include proper tensioning, cleaning, storage, packing, and the influence of the plates used. 2 Illustrations.

655.324

RESEARCH IS RETURNING ZINC TO LITHO PROMINENCE. Anon. The Inland and American Printer and Lithographer 146, No. 4, January 1961, p. 52 (1 page). Brief report on work done at LTF which has resulted in a technique giving a grain as fine as any, a diazo wipe-on coating, a one-step ink developer, and evaluation of new alloys giving non-stretch long runs on the press. 1 Illustration.

655.325

ETCHING, GUMMING, APPLYING ASPHALTUM - DEEP-ETCH ALUMINUM PLATES. Charles W.Latham. The Inland and American Printer and Lithographer 146, No. 4, January 1961, pp 54-56 (4 pages). "True plate quality lies in the selectivity of its two surfaces." Various surface relationships of different surfaces to ink and water acceptance and rejection are discussed briefly. Then follows a step-by-step description of the operations given in the title. 4 Illustrations.

PAPER AND INK

655.08

***APPARATUS FOR INDICATING CHANGES IN INK.** U. S. Patent 2,968,988 - Filed September 3, 1957. John F. Crosfield - Assigned to J. F. Crosfield Limited of London,England. Official Gazette 762, No. 4, January 24, 1961, p. 674. Apparatus for indicating changes in the density of ink on a printed surface, the printed surface having predetermined monitoring areas of ink spaced at selected points across its width, the apparatus comprising a scanning head including a photoelectric cell, driving means for traversing the scanning head across the printed surface to enable the scanning head to scan said monitoring areas and to produce corresponding electric signals, exposure control means for additionally exposing said photoelectric cell to two different standardizing light intensities of greater and less value respectively than those of the monitoring areas, so that the output of the photoelectric cell includes, in addition to the signal corresponding to a scanned monitoring area, two signals of different values representing the two different standardizing light intensities, a control circuit responsive to the output of the photoelectric cell to provide a signal representing the density of the scanned monitoring area in relation to the standardizing light intensities, an indicating means responsive to the density-representing signals to provide an indication of the ink density at the selected points, and gating means rendered operative during movement of the scanning means between the monitoring areas across the width of the printed surface to block the application to the indicating means of data representing the appearance of the printed surface between successively scanned monitoring areas.

655.306

PAPER - MOISTURE HUNGRY AIR. William H. Bureau. The Graphic Arts Monthly 33, No. 1, January 1961, pp. 42,44,88 (3 pages). Modern exacting requirements of high speed presses, large sheets, deadlines and quality control can mean loss of presstime if paper conditions are not right. Troubles can take the form of curled paper, static and misregister. Winter means low relative humidity in the pressroom and the giving up of moisture by paper causing tight edges, baggy centers and misregister. A relative humidity of about 45% is probably best. Modern humidifying systems can evaporate the large quantities of water required to maintain this RH.

676.2 : 676.27

SOME GRADES OF PAPER AND THEIR PROPERTIES. John Buss. Provincial's Paper 26, No. 1, 1961, pp. 9-12 (4 pages). Paper properties are generally obtained by compromise; strength vs. printability; finish vs opacity; softness vs good wearing qualities; and all must compromise with cost. Author discusses such properties as strength, finish, softness and hardness, sizing, alkalinity, grain direction and opacity in relation to such uses as letterpress, offset, gravure, bond, duplicating, etc.

655.306

HANDLING AND CARE OF PAPER. Fred Masterman. Provincial's Paper 26. No. 1, 1961, pp. 13-14 (2 pages). Specific suggestions, such as: wide aisles and ample unloading area to avoid bumping rolls or cartons, never "walk" a carton or store on edge, don't drop rolls, etc. Suggestions also include conditioning of paper and a table of temperature conditioning times is given.

655.306

COLOR AND INK OBSERVATIONS. Donovan Mills. The American Pressman 71, No.1, January 1961, pp. 35-38 (4 pages). Editor's Note - This is a "boiled-down" version of a more comprehensive treatment of the subject, including samples, which Mr. Mills used in talking to the Customer Service people at Kale. The material published here has been selected for its interest and value to printing pressmen.

These somewhat random observations touch on proper use of color in relation to surrounding colors, influence of whiteness and absorbency of paper on color of ink used, influence of the printing process used on the ink lay, influence of amount of ink laid down on color, some causes of mottling, clarification of terminology so that misunderstandings can be avoided, proper order of ink tack in 4-color wet printing so as to get good trapping, etc. Some specific problems of gravure ink are dealt with separately.

676.235

VIGOROUS GROWTH OF ON-MACHINE COATING. John J. Bartosiewicz. Paper Trade Journal 145, No. 5, January 30, 1961, p. 29 (1 page). Figures show that the 1960 production of 1.9 million tons exceeded the tonnage of uncoated groundwood printing and uncoated book. Other figures are given, including data on location of mills doing on-machine coating.

676.27

COUNCIL ON LIBRARY RESOURCES DEBATES ROLE OF PERMANENT/DURABLE PAPERS. Anon. Book Production, January 1961, pp. 47, 53 (2 pages). Librarians point out that they have a deterioration problem. Paper makers discussed papers from the use standard and pointed out that a uniform paper for all uses could not be made, and discussed the various elements entering into the problem: permanence, durability, cost, strength, bulk, mellowness, etc.

676.27

FINISH OR GLOSS. I. Scott. The Litho-Printer 4, No. 1, January 1961, pp. 7, 9, 10 (3 pages). For good printing, paper must have an even surface on a consistent caliper of sheet, be free of blemish, free of variations in hardness. Gloss and smoothness can be measured by instruments, if available. Author describes instrumental and other methods and points out relationships of these factors to good printing. 6 Line Illustrations.

655.306

PREDICTING PAPER PRINTING QUALITY BY THE "BATTERY OF TESTS" METHOD. Alex Glassman. TAPPI 44, No. 1, January 1961, pp. 7-11 (5 pages). A method for evaluation and prediction of paper properties important for 4-color rotogravure print quality has been determined. This method has been found to apply over a wide range of paper grades covering (1) coated and uncoated as well as (2) wide variations in pulp furnish

(groundwood and groundwood-free) (3) and changes in finish varying from supered to unsupered (4) with some papers carbonate filled, others clay filled. A number of excellent methods are in use that appear to correlate well for a given grade of paper, such as for groundwood (1) machine-coated, (2) or paperboard, (3) these methods appear to work well for a given group of papers made on similar equipment from similar furnishes. Experience has shown that no known method could fully explain in numerical fashion why many uncoated papers print with such extreme graininess as to be commercially of very poor quality. This paper describes how through the cooperation of a group, representing five paper companies, an inkmaker and a printer, a precise trial was made, which together with laboratory work has led to separation of the effects of ink, press, and paper. With respect to paper it was found that no single test could explain the observed effects, but that with a battery of as few as four tests an extremely high correlation was obtained. A coefficient of multiple correlation 0.892 was typically obtained through the use of a selected battery of tests, although in many instances the individual tests had very much poorer correlation coefficients, in some cases far below 0.50. Using an IBM 610 Computer, typical equations were determined, relating laboratory tests with commercial four-color print quality. 7 References, 7 Tables, 5 Graphs.

655.2

HOW EASTERN GREATLY IMPROVED ITS FINISHING OPERATIONS AT BREWER. Donald D. Hall. Paper Trade Journal 145, No. 4, January 23, 1961, pp. 18-23 (6 pages). Report on a study on and the working out of extensive improvements in the finishing department of a fine paper mill. Study was aimed at economy, and the quick processing of orders, large or small. It was found that stock movement took up too much floor space. Reorganizing movement freed floor space for storage, cutting down the need for short millruns. The planning of stock movement was carried out with the aid of a three-floor plastic scale model showing placement of equipment. This model is illustrated, and the stock movement scheme shown in a 3-dimensional flow diagram. A floor layout is also given. 10 Illustrations.

655.306 : 655.04

QUALITY CONTROL: INCOMING INK DELIVERIES. Alan D. McInnes. The Australasian Printer 12, No. 1, January 1961, pp. 33-36 (4 pages). Some of the elements of this operation which are discussed are: insistence on batch number identification; choice of acceptable batch as a standard for comparison; instrumentation. Some properties for control are: color and strength, opacity, drying, tack, etc. Proper feedback of information and a reasonable attitude toward holding up production are a necessary part of a quality control system.

676.2

NEW METHODS FOR SIZING FIBROUS PRODUCTS. G. D. Sinclair, R. S. Evans and H. R. Sallans. Pulp and Paper Magazine of Canada 62, No. 1, January 1961, pp. T32-T27 (5 pages). The adverse effects when standard sizing methods are used to waterproof fibrous products has stimulated studies on new sizing techniques. Metal ions, when combined with pulp having certain compounds present such as lignin, phenols and flavones, will effectively size fibrous products made from this pulp. The loss in strength due to sizing by the standard method could be overcome if the product could

be sized after being formed and dried. This can be done by vapour sizing board and paper by exposing them to vapours of medium chain length fatty acids (10 to 16 carbons) at temperatures commonly used for drying these products. The higher the temperature the more rapid the vapour absorption. The fatty acid molecules appear to form an ester with the cellulose. The amount of fatty acid necessary for sizing the product is very small, 0.35-0.6 percent based on dry weight of fibre. 10 References, 6 Charts, 3 Tables.

655.82 : 655.306

MAGNET INKS. E. A. Apps. Print in Britain 8, No. 9, January 1961, pp.289-293 (5 pages). Magnetic inks were found to be a better sensing means than others tried and was adopted by the American Pankers' Association for machine sorting of checks. The inks are magnetizable (rather than magnetic) when subjected to a magnetic field. This property is explained. The inks must be matched to the equipment with which they will be used. The magnetizable pigments used, the printing method, the E-13-B figures and symbols are illustrated and explained. Other systems, such as Fred and Burroughs are also explained briefly. 12 References; and 11 Illustrations, mostly of equipment.

676.27

DRYING STRESSES AND CURL IN PAPER. P. Glynn, H. W. H. Jones and W. Gallay. Pulp and Paper Magazine of Canada 62, No. 1, January 1961, pp. T39-T48 (10 pages). Studies have been conducted on the effects of drying conditions on curl in paper, superimposed on the effects of differential fibre orientation. Both handsheets and a variety of machine-made papers have been included. Freeness of pulp stock and furnish were varied, and moisture was added and removed under a wide variety of conditions. Curl on drying, or contraction curl, is sharply differentiated from expansion curl with increase in moisture content. The effect of drying conditions on resultant curl is due to strains set up in the paper with the net result that curl is favoured toward the face from which the moisture is last removed. The axis of curvature can be altered by drying, but only in such a manner that the curvature face is also changed, so that a complementary curl form is developed. 2 References, 11 Charts.

655.09

ECONOMIC REVIEW OF PULP, PAPER AND PAPERBOARD. W. LeRoy Neubrech. Paper Trade Journal 145, No. 4, January 23, 1961, pp. 26-27 (2 pages). Only a modest increase in U.S. consumption is forecast for 1961 but a continuation in the strong upward trend of exports is expected. Need for orderly marketing is stressed. Development in 1960 is reviewed. A graph shows production, imports, exports and per capita consumption for 1950-1960.

655.08

*COLOUR PRINTING. U.S. Patent 2,969,016 - Filed March 15, 1956. John F. Crosfield and Gordon S. J. Allen - Assigned to J. F. Crosfield Limited. Official Gazette 762, No. 4, January 24, 1961, pp. 682. An apparatus for indicating changes in the quality of colour reproduction in printing with ink of at least one colour, comprising a scanning head, including a photoelectric cell which scans patches of the ink on a printed surface to give an output signal which represents the reflectance of the patches but which may also be affected by changes in factors unrelated to the reflectance of the said patches, exposure control means for additionally exposing said photoelectric cell

to two different standardizing light intensities, at least one of which varies in accordance with changes in at least one of the said unrelated factors whereby the output of said photoelectric cell includes, in addition to the signal corresponding to the said ink patches, two signals of different values representing the said two different light intensities, the difference between the two values including variations due to changes in said one unrelated factor, control means for deriving from said two standardizing signals a control signal varying in accordance with their difference, an amplitude compensating circuit receiving the output signal from said photoelectric cell and having means whereby the amplitude of the part of said signal corresponding to the ink patches is varied by means of said control signal to remove from the signal which corresponds to the ink patches the variations due to changes in the said one unrelated factor, and an electrical indicator connected to respond to the output of said control circuit so as to indicate changes in the quality of colour reproduction.

LITHOGRAPHY - GENERAL

655.329

WEB OFFSET MOVING FAST. George O. Baker. American Pressman 71, No.1, January 1961, pp. 33-34 (2 pages). Author first states that the IPP & AU has held to a policy of welcoming technological changes. Offset is coming in the newspaper field. Statement is made that a leading weekly (not named) with a circulation of nearly a million has purchased a large web offset press. Some of the reasoning back of this decision, such as improved halftones, savings in paper, etc. are discussed.

655.329

SAUNDERS TRACES WEB-OFFSET DEVELOPMENT FOR MLA. Stanton C. Saunders. Modern Lithography 29, No. 1, January 1961, p. 86 (1 page). A report on "Web-Offset Today" a talk given before Modern Lithographers Association on November 22, 1960, in New York. He said more engineering has gone into web offset presses in the past four years than in all previous web history. Improvements cited include curing of plate breaking, long life plates, improved dampening action, two piece blankets and shortened dampening action, two piece blankets and shortened makeready time. Problems ahead involve crew training. Expanding usages are cited.

655.7 : 655.329 : 655.314

A STUDIED LOOK AT THE IMPACT OF TODAY'S TWO BIG DEVELOPMENTS: WEB OFFSET AND WRAP-AROUND LETTERPRESS. C. M. (Larry) Flint. New England Printer & Lithographer 24, No. 1, January 1961, pp. 76-79 (4 pages). Census figures cited show relative growth of various processes, showing that offset and gravure are growing at the expense of letterpress. There must be a reason for this. What the book printer might do about this is discussed. Books come in such a variety of sizes that the fixed cut off rules out web offset and gravure. Quality considerations no longer rule choice between letterpress and offset. Wrap-around letterpress and plates are discussed, particularly with regard to costs. 3 Illustrations.

655.307 : 655.328

CARE OF ROLLERS, INK ROLLER AND DAMPENERS. John Jachimiec. No. 27 of "The How and Why of Carton Lithography", Boxboard Containers 79, No. 817, January 1961, pp.50-52 (3 pages). A thorough analysis of care and cleaning of rollers. Printing quality depends on rollers. 7 Illustrations.

655.329

WEB OFFSET - WHAT CAN IT DO? - ADVANTAGES AND DISADVANTAGES. Kenneth L. Wallace. The Inland and American Printer and Lithographer 146, No. 4, January 1961, pp.52, 102 (2 pages). Advantages include speeds up to 20,000 to 25,000 iph, cutting of paper costs and delivery of complete signatures. Growth in number of presses in 10 years is from 10 to 18 presses to over 200, of which 60 are 4-color presses. Limitations are in high minimum practical run length, high waste, fixed cut off, and grain long way of web. Author anticipates a definite place in printing, but no take-over of all sheet fed printing.

655.329 : 655.307

BLANKET WASHING MACHINE FOR WEB OFFSET PRESSES? Charles W. Latham. The Inland and American Printer and Lithographer 146, No. 4, January 1961, p. 56 (1 page). The problem of a blanket washing machine is thoroughly discussed from the standpoint of paper wastage, web breaks, number of revolutions to wash, cleaning the washing pad, etc. Problems and difficulties are pointed out, but author ends with the belief that they will be solved.

633.326

ON WEB-OFFSET, AS ON SHEET-FED PRESSES . . . WATCH THE PACKING. Anon. Modern Lithography 29, No. 1, January 1961, p. 47 (1 page). (Reprinted from the Bulletin of the Lithographic Division, New York Employing Printers Assoc.) Packing of blanket-to-blanket web perfectors is critical, especially with thin presensitized plates. Minimum pressure is recommended and means of getting it are described.

655.32 : 655.7

PRINTING BOOKS BY OFFSET. Frank Arbolino. Modern Lithography 29, No. 1, January 1961, pp. 59,119,120 (3 pages). Author calls attention to certain aspects of lithographic printing of books which need particular attention. These include: uniform type face weight; proper positioning in layout; checking bulky paper beforehand to learn how it folds; ink preparation for safety in bindery operations.

655.329

MISCELLANEOUS WEB OFFSET PROBLEMS. Panel. National Lithographer 68, No. 1, January 1961, pp. 30-33, 40 (5 pages). Report of a panel discussion at the 1960 St. Louis meeting of the Web Offset Division of P.I.A. Some points discussed were: Customer expectation of high quality work on poor quality paper; trouble with matching letterpress proofs with conversion results; air rollers and grater rollers; reduction in the tack relationship between paper, ink and blanket allowing running with less tension, and research on ink transfer.

GRAPHIC ARTS - GENERAL

655.309

REGISTER SETTING DEVICES IN ROTARIES. Anon. Der Polygraph, 2-1961, 20 January 1961, pp. 56-57 (2 pages). Article in German. Two Illustrations.

655.04

PLAN FOR SURVIVAL. J. W. Rockefeller, Jr. Printing Magazine 85, No. 1, January 1961, pp. 69,78 (2 pages). A discussion of modernization of printing equipment. Some points covered compared wrap-around and flat-bed letterpress, typewriter composition, web offset newspapers, specialized single purpose and multi-purpose machinery. Suggestions are offered on analysis of needs.

655.07

EUROPEAN PRINTING RESEARCH EXTENSIVE. Anon. The American Pressman 71, No. 1, January 1961, p. 17 (1 page). Mention of a list of graphic arts research projects currently in progress in Europe given in "International Bulletin for the Printing and Allied Trades". Some 22 projects are said to relate to presswork alone and some of these are described briefly. Nine institutions conducting graphic arts research are listed.

655.307

SPRAYS OF FDA 'WHITE LIST' INGREDIENTS NOW AVAILABLE. Anon. The American Pressman 71, No. 1, January 1961, pp. 23-24 (2 pages). Twenty-three producers of non-offset sprays have issued a statement regarding their sprays in relation to their "food additive" aspects. 1. Sprays are not offered or represented as food products. 2. In case they do become components of foods, sprays can be supplied from materials on "white list" of F.D.A. 3. A statement of policy of the group issuing the statement. The members of the group are listed.

655.25

TYPE FOUNT PROPORTIONS. R. C. Blakey. The British Printer 74, No. 1, January 1961, pp. 103-109 (7 pages). Report on some research on the numbers of the different letters, figures and punctuation marks making up hand set work. Samples of hand-set work were obtained from 25 randomly selected printers covering a variety of work. Some 92,000 characters from 350 separate jobs were counted. The results are given in % form. It is believed that a saving of as much as 10% will be made on dead metal left in a font otherwise exhausted. 2 Tables.

655.04

CASE HISTORY OF OUR QUALITY CONTROL PROGRAM. Robert E. Wood. Modern Lithography 29, No. 1, January 1961, pp. 32-34 (3 pages). Quality control in the graphic arts is carefully analyzed. 1. What is quality? 2. Control? 3. Why control quality? 4. At what level? Each of these points is systematically elaborated upon; for instance, quality can be built into a product through design, materials and workmanship. Control involves error detection, error correction and a means of feedback of information to accomplish correction. Each aspect of quality control is similarly organized and discussed in full detail, referring to methods used at Western Printing & Litho Company.

655.255

ROBOT READER'S AID. Anon. The Lithographer and Offset Printer 57, No. 1, January 1961, pp. 14, 16 (2 pages). Brief report on an installation of the proof-reading system using a tape recorder in place of a second person. Report is that while no time is saved, accuracy is improved and proof-reader fatigue is decreased. 1 Illustration.

655.28

SET A WHOLE BOOK ON TAPE BEFORE IT IS DESIGNED. William Baumrucker. New England Printer and Lithographer 24, No. 1, January 1961, p. 79 (1 page). Since a Photon machine contains its own counter, it is possible to put the entire text of a book on tape before choosing type face, page designs, etc. With line length, etc. chosen, it is then possible to feed the tape into the machine which will then do the necessary justifying, hyphenation, etc. The handling of corrections in this procedure is described.

655.36

"WE PRINT ON ANYTHING" - SILK SCREEN - "THE MISSING LINK". W. Gordon Buffett. New England Printer & Lithographer 24, No. 1, January 1961, pp. 94, 96 (2 pages). The silk screen industry today has approximately a $150,000,000 volume. Some history is given briefly. Automatic equipment came in the late 30's. Decals are a big item. Longer runs are common. Opacity of printing is pointed out and a number of other advantages and capabilities listed.

655.28

HERALD SETS MILLION LINES A MONTH. James Hurley. New England Printer & Lithographer 24, No. 1, January 1961, pp. 99-100, 103 (3 pages). After four years, Boston Herald's photocomposition department has grown from three men to twenty with more in training, handles 20-25% of all display advertising, 100% of Sunday rotogravure. Equipment includes 2 Fotosetters and a Photon. Proofing is done on a Haloid Xerox photostat machine. Other details are given. One Illustration, and a layout illustrating a patented markup system.

655.73

SAFETY IN CUTTING OPERATIONS. Anon. Book Production, January 1961, p. 45, (1 page). There are certain conditions where keeping both hands on the controls of a guillotine is a handicap. An angle bracket is described which enables operator to hold narrow work. A switch in the handle replaces one control button. A drawing shows construction. 3 Illustrations in all.

655.82

BRITISH BANKS ADOPT U. S. MAGNETIC CHARACTER CODES. Anon. Control Engineering 8, No. 1, January 1961, p. 21 (Entire article given here). London - Clearing banks here have chosen to adopt American magnetic coding machine language for sorting checks with electronic readers instead of the "Fred" characters developed by Electric & Musical Industries Electronics Ltd. and the CMB type font pioneered by the French company De La Rue Bull Machines. The English banks are now ready to proceed with mechanization plans. Initial equipment will have to be imported from the U. S., giving a competitive edge to such suppliers as General Electric, IBM, Burroughs, National Cash Register - all of whom are already producing magnetic character recognition equipment.

655.73

CORRECT PAPER-KNIFE CARE MEANS QUALITY CUTS, GREATER SAFETY. W. R. Frazier, Harris Impressions #112, January 1961, pp. 2-4 (3 pages). Standard bevel of 24 1/2 to 26° is satisfactory for 90% of cutting. This bevel and 8 others suggested for certain special uses are shown in diagrams. Changing knives is explained in 5 illustrations.

655.28

AUTOMATION FOR COMPOSING MACHINES. Anon. Print In Britain 8, No. 9, January 1961, pp. 266-268 (3 pages). A brief, non-technical description of the BBR system (for Bafour, Blanchard and Raymond; the inventors). In this system a perforated tape is prepared by typing the text without consideration of type, measure, leading or other style details. A second tape contains corrections and function commands as to type style, measure, etc. The two are then combined, using an electronic unit, to perform the typesetting operation. This can be on a number of different hot metal or cold typesetters. Savings of from 10 to 40% in time are estimated for various kinds of copy. 4 Illustrations or diagrams.

655.36 : 655.24

TYPOGRAPHY FOR SCREEN PRINTING. Francis Carr. Print In Britain 8, No. 9, January 1961, pp. 270-271 (2 pages). Suggestions are offered for the best reproduction of type matter and lettering within the limitations imposed by the stencil, the manner of printing and the ink used. Imperfections are exaggerated, serifs and brackets lose sharpness, counters fill in, etc. Very contrasty type faces, hair-line serifs, shadow and highly ornamental letters are to be avoided. Other suggestions are offered. 2 Illustrated examples.

655,339 : 655.336

CONTROL OF INK VISCOSITY ON ROTOGRAVURE PRESSES. Anon. Print In Britain 8, No. 9, January 1961, p. 286 (1 page). A brief description of a combination of Crosfield's Idotron for color control and Viscometron for ink viscosity control to control color density by the addition of ink and extender. 1 Schematic Diagram.

655.318 : 655.7 : 655.315

PRINTING BOOKS ON LETTERPRESS ROTARIES WITH DUPLICATE PLATES. Anon. Print In Britain 8, No. 9, January 1961, pp. 273-274 (3 pages). Books discussed include both paperbacks and better class books, presses are smaller size English and German make. Plates of rubber and plastic are discussed. Rubber plates with harder surfaces, more resilient backs are favored as eliminating the need of makeready in the packing. Reproduction up to 133 line screen is claimed to be possible. Plates with 2 Illustrations.